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| EXAMINER |
|---|
| AUGUSTIN, EVENS J |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>25 January 2008</u>.

2a)☒ This action is FINAL.  2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1,3,5-33,35 and 37-66</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1, 3, 5-33, 35 and 37-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All  b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage

　　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

### *Acknowledgements*

1. This is in response to an amendment filed on January 15th, 2008. Claims 1, 7, 14, 33, 39 and 46 have been amended. Claims 1, 3, 5-33, 35 and 37-66 are pending.


### *Response to Arguments*

2. The United States Patent and Trademark Office has fully considered the applicant's arguments filed on January 15th, 2008, but has not found those arguments to be persuasive.

**Argument 1:** Herz and Rose patents, either taken alone or in combination, neither teach, nor suggest, an act of (or means for) determining initial user profile information for the user using information included in past search queries submitted to a search engine by the user. wherein such information is independent of documents returned as search results to the past search queries

**Response 1:** The USPTO respectfully disagrees with this notion. Specifically, the prior art by Hertz teaches the aspect of obtaining user profile attributes such as age and zip code (physical location) (column 4, lines 54-55). The system also stores profiles of documents which enables a user to access target objects of relevance and interest to the user without requiring the user to expend an excessive amount of time and energy (column 4, lines 35-42) –User profiles are determined from past searches submitted by user (column 4, lines 58-61)


**Argument 2:** One skilled in the art would not have been motivated to combine these references as proposed by the Examiner. As discussed in previous responses, the specification of

the present application provides an illustrative example of how initial user profile information for a user can be determined using past search queries submitted by the user. Specifically, the specification states: There are many alternative ways to obtain user information. For example, a score 440 for an attribute 420 and value 430 can be determined with a machine learning classifier which predicts values 430 of the UPI attributes 420 in the profile using words in queries deployed previously. For example, given the keywords related to "women's health" in previous search queries, the classifier may infer that the user is a woman with probability 0.8. Further, given that Japanese words were used in previous search queries; the classifier may infer that the user is Japanese with probability 0.9, etc.

    **Response 2:** It would have been obvious for one skilled in the art to have a system that have graphical representation of users and/or document. The motivation for one skilled to use graph would be to establish relationships between the user and/or document. The very definition of the word *graph* is to establish some sort of relationship (Merriam Webster dictionary: Graph - the collection of all points whose coordinates satisfy a given relation (as a function)). The USPTO simply disagrees with applicant's argument that the one skilled in the art would not have been motivation by finding relationships, in using a graph. With regard to the use of dictionary, MPEP section 2111.01 states: "In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take onthe ordinary and customary meanings attributed to them by those of ordinary skill in the art."). It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the"customary" meaning of the terms in the claims. Ferguson Beauregard /Logic Controls v. Mega Systems, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009

(Fed. Cir. 2003) (Dictionary definitions were used to determine the ordinary and customary meaning of the words "normal" and "predetermine" to those skilled in the art. In construing claim terms, the general meanings gleaned from reference sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor.); ACTV, Inc. v. The Walt Disney Company, 346 F.3d 1082, 1092, 68 USPQ2d 1516, 1524 (Fed. Cir. 2003)".  In absence of a lexicographical definition, dictionary definition can be used to establish ordinary meaning.

     **Argument 3:**  Herz and Rose patents, either taken alone or in combination, either taken alone or in combination, neither teach, nor suggest, acts of (or means for) inferring user profile information for the user by (i) defining a node for each of a number of documents and the user, (ii) adding edges between nodes if there is an association between the nodes to define a graph, and (iii) inferring user profile information for the user using a topology of the graph and user profile information of other documents.

     **Response 3:** With regard to the aspect of defining a node for each of a number of documents and the user, looking into applicant's specification, it is not clear how the work ***node*** is being defined.  For example, in paragraph 56 of the published specification, applicant used nodes alternatively with access points ("one or more areas served by common cable head end stations, one or more areas served by common network access points or nodes, etc. ").  In paragraph 103, nodes seems to be used to describe a point in a flow diagram ("...Acts 620 and 630 may be performed one or more times before the method 600 is left.  (Node 640) ") (See item 640 in Fig. 6 and item 740 in Fig. 7).  In paragraph 111, "the association  information 1070 may

be a graph in which users and documents are represented as nodes 1072 and 1076, respectively. This aspect is taught by via figures 5 and 6 Rose, where the association of documents and users are shown.

The edges appear to be the actual association line between users and documents (see Fig. 10, item 1074). As such, the table in figure 6 of Rose shows on the Y axis the different documents and the X axis the different users associated with these documents. Therefore, once these relationships are established it would have been obvious for one skilled art at the time of applicant's invention to draw lines or edges between the documents that are associated with particular users.

With regard to the aspect of inferring user profile information for the user using a topology of the graph and user profile information of other documents, the prior art by Hertz teaches mapping/graphing a user target profile interest summary indicative of said user's access patterns to target objects and sets of target object characteristics to said user pseudonym (C79, L8-10).

### Specification Objections

3.   The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Specifically, the claims contain the aspect of "controlling the serving of an advertisement to the user using the determined user profile information". The USPTO was not able to find support for these claim languages in the specification. The rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the

terms and phrases used in the claims must find clear support or antecedent basis in the

description so that the meaning of the terms in the claims may be ascertainable by reference

to the description." 37 CFR 1.75(d)(1). Correction is required.

### *Claim Rejections - 35 USC § 112 – 1ˢᵗ Paragraph*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

Claims 1, 7, 14, 33, 39 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claims contain subject matter, which was not

described in the specification in such a way as to enable one skilled in the art to which it pertains,

or with which it is most nearly connected, to make and/or use the invention. Specifically, the

claims contain the aspect of "controlling the serving of an advertisement to the user using the

determined user profile information". The USPTO was not able to find support for these claim

languages in the specification and are therefore considered new matter. All claims that depend

on these independent claims are rejected as well. Correction is required.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to

a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3, 5-33, 35 and 37-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz et al. (U.S 5,754,939) ("Herz"), in view of Rose et al. (U.S 5724567) ("Rose").

7. As per claims 1, 3, 5-33, 35 and 37-66, Herz et al. discloses a computer system for evaluating customer and document/object profiles to automatically generate "target profiles" that most likely will interest the user. The computer system comprises apparatus with means (column 28, lines 43-67, columns 29, 30, figures 1 and 2) to do the following:

A. Obtaining user profile attributes such as age and zip code (physical location) (column 4, lines 54-55). The system also stores profiles of documents which enables a user to access target objects of relevance and interest to the user without requiring the user to expend an excessive amount of time and energy (column 4, lines 35-42) – User profiles determined from past searches submitted by user (column 4, lines 58-61)– ("determining initial user profile information for the user using information included in past search queries submitted to a search engine by the user, wherein such information is independent of documents returned as search results to the past search queries;")

B. Getting a summary of digital profiles of target objects that user likes or dislike (column 4, lines 56-58). The system can also infer the user/document interest (profile) from the user's behavior (column 17, lines 33-35). For example, the system might monitor which documents the user chooses to read, or not to read, and how much time the user spends reading them (column 17, lines 35-38) - ("inferring user profile information for the

user;") ; ("determining the user profile information for the user using both the initial user

profile information and the inferred user profile information")

C. Getting user profiles determined from past searches submitted by user (column 4, lines

58-61) – ("the act of determining an initial user profile information for the user further

uses past 4 document selections by the user")

D. Attributes having values (column 10, lines 8-9, line 52, column 12, line 58) and scores

(column 12, lines 60-67, column 13, lines 1-9). The score represents the frequency in

which a particular attributes appears in a document. Thus, the score represents the

likelihood of particular attribute being correct – ("the initial user profile includes a

plurality of attributes, each of the plurality of attributes having a value and a score")

E. A node being examined as a device that is connected, as part of a computer network and

the way data is stored in those devices so that it can be used efficiently. The edges are

being examined as a set of connections or links between objects or nodes. In figures 1

and 2, these devices consist of information servers (figure 1 items I1 and In), vendor

servers (figure 1, items V1 and Vn) and user devices (figure 2, items T1-Tn). These

nodes and links are further represented in figures 3 and 4. The information servers

contain the target documents (column 26, line 37, column 29, line 1-5) being requested

and accessed by the user (column 28, 66-67, column 29, lines1-5). The system can link

users to documents based on users' interest to the documents or other documents

associated with each link (column 60, lines 62-64) – *Claims 7, 20, 39, 52*

F. The system can relate a user with past searches words such past interest in films whose

review text (attribute h) contains words like "chase," "explosion," "explosions," "hero,"

"gripping," and "superb" (column 10, lines 37-42). The system can also record

**associations** between documents (movies) and **users** column 10, lines 43-46). A good

indication that the user wants to rent a particular movie is that the user has previously

rented other movies with similar attribute values. For example, if the user has often liked

movies that customer 1 and customer 2 have rented, then the user may like other such

movies. Since the system can system relationships between users and documents one

skilled in the art could easily infer from these relationships to create graphs (column 10,

lines 46-53). With regard to the aspect of "(adding edges between nodes, <u>if</u> there is an

association between the nodes to define a graph,") can be interpreted as equivalent to "not

adding edges between nodes, if there is no association. Therefore, that limitation does

not have to happen, and can be interpreted as such –

G. Mapping/graphing a user target profile interest summary indicative of said user's access

patterns to target objects and sets of target object characteristics to said user pseudonym

(C79, L8-10) -- ("inferring user profile information for the user using a topology of the

graph and user")

H. ("an edge is added between first and second nodes if a document corresponding to the

first node was returned in a search results page to a search query from the user

corresponding to the second node."), can be interpreted as equivalent to "not adding edge

between …, if there is no document corresponding….. Therefore, that limitation does not

have to happen, and can be interpreted as such

I. Attributes are multiplies by a weight, a weighted attributes are added together (column

18, lines 63-67, column 19, lines 1-7) –

J.   The system gathers documents with similar profiles, based on their content. In this case, the system gets information about intrinsic properties of users and/or documents (column 23, lines 55-65) –

K.  System using document meta data  (column 11, lines 4-15)


8.  Herz et al. does not explicitly describe an invention with a node that represents document or users.

9.  However, Rose et al. describes an invention that is directed to information access in multiuser computer systems, and more particularly to a computer-based information system that enables users to access information from a wide variety of sources. According to Rose et al., each term, e.g. each word, in a document can be assigned a weight, based on its statistical importance. Thus, for example, words which frequently occur in a particular language are given a low weight value, while those which are rarely used have a high weight value. The weight value for each term is multiplied by the number of times that term occurs in the document. Referring to FIG. 5A, the results of this procedure is a vector of weights, which represents the content of the document (Col. 6, Line 9-17). "Each user profile also comprises a vector, based upon the user's indications as to his relative interest in previously retrieved documents. Each time a user provides a new response to a retrieved message, the profile vector is modified in accordance with the results of the indication. For example, if the user indicates interest in a document, all of the significant terms in that document can be given increased weight in the user's profile "(col. 6, lines 28-35). "A score of the document's relevance can be indicated by the cosine of the angle between that document's vector and the

user's profile vector. A document having a vector which is close to that of the user's profile, such as Document 4, will be highly ranked, whereas those which are significantly different will have a lower ranking, for example Document 1" (col. 6, lines 55-60, Fig. 5B).

10. The edges appear to be the actual association line between users and documents (see Fig. 10, item 1074). As such, the table in figure 6 of Rose shows on the Y axis the different documents and the X axis the different users associated with these documents. Therefore, once these relationships are established it would have been obvious for one skilled art at the time of applicant's invention to draw lines or edges between the documents that are associated with particular users.

11. Therefore, it would have been obvious for one skilled in the art to have a system that have graphical representation of users and/or document. The motivation for one skilled to use graph would be to establish relationships between the user and/or document.

### *Conclusion*

12. **THIS ACTION IS MADE FINAL.** Any new ground(s) of rejection is due to the applicant's amendment. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Evens Augustin whose telephone number is 571-272-6860. The

examiner can normally be reached on Monday thru Friday 8 to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Fischer can be reached on 571-272-6779.


/Evens J. Augustin/
Evens J. Augustin
April 17, 2008
Art Unit 3621

/Jalatee Worjloh/
Primary Examiner, Art Unit 3621